



Complete Summary

TITLE

Neonatal infections: percentage of babies of greater than or equal to 1000 grams birth weight, admitted to the neonatal intensive care unit (NICU) during the time period under study who have a significant blood infection occurring more than 48 hours after birth at any time during their whole admission.

SOURCE(S)

Australian Council on Healthcare Standards (ACHS). ACHS clinical indicator users' manual 2009. ULTIMO NSW: Australian Council on Healthcare Standards (ACHS); 2009 Jan. 853 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Outcome

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of babies of greater than or equal to 1000 grams birth weight, admitted to the neonatal intensive care unit (NICU) during the time period under study who have a significant blood infection occurring more than 48 hours after birth at any time during their whole admission.

RATIONALE

Early onset infections are usually acquired from the mother during the birth process. A proportion of these infections are preventable through adherence to appropriate standards of maternal care. Late onset infections within Neonatal Intensive Care may also be prevented through adherence to appropriate

standards of care, particularly with management of intravascular lines. The risk of early and late onset infections is strongly correlated with birth weight and gestational age.

PRIMARY CLINICAL COMPONENT

Neonatal infections (blood); birth weight (greater than or equal to 1000 grams)

DENOMINATOR DESCRIPTION

Total number of babies of greater than or equal to 1000 grams birth weight, who survive greater than or equal to 48 hours, admitted to the neonatal intensive care unit (NICU), during the 6 month time period (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Total number of babies of greater than or equal to 1000 grams birth weight, admitted to the neonatal intensive care unit (NICU) during the time period under study who have a significant blood infection occurring more than 48 hours after birth at any time during their whole admission (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Australian Council on Healthcare Standards (ACHS). Australasian clinical indicator report 2001-2007. Determining the potential to improve quality of care: 9th edition. ULTIMO NSW: Australian Council on Healthcare Standards (ACHS); 2008. 611 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use**CARE SETTING**

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Neonates (greater than or equal to 48 hours of birth)

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component**INCIDENCE/PREVALENCE**

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Safety

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Babies of greater than or equal to 1000 grams birth weight, who survive greater than or equal to 48 hours, admitted to the neonatal intensive care unit (NICU), during the 6 month time period

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Total number of babies of greater than or equal to 1000 grams birth weight*, who survive greater than or equal to 48 hours, admitted to the neonatal intensive care unit (NICU)**, during the 6 month time period

*Refer to the original measure documentation for International Classification of Diseases, Tenth Revision, Australian Modification (ICD-10-AM) codes.

**Intensive care: Level 3 neonatal ICUs only; note that Level 3 nurseries should include in both numerator and denominator, neonates admitted or transferred to their Level 2 step down areas where this facility is managed within the same hospital.

Exclusions

Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Institutionalization

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Total number of babies of greater than or equal to 1000 grams birth weight, admitted to the neonatal intensive care unit (NICU) during the time period under study who have a significant blood infection* occurring more than 48 hours after birth at any time during their whole admission

***Significant late blood stream infection definition:** both of these criteria are to be satisfied (see also the flow chart in the original measure documentation):

- Isolation of an organism(s) from blood culture, one or more sets, excluding mixed coagulase negative staph (confirmed by ID**), aerobic coryneforms or propionibacteria **or** repeat isolate of the same organism from blood during the previous 14 days.
- Clinical intent*** to treat the organism is present.

Refer to the original measure documentation for International Classification of Diseases, Tenth Revision, Australian Modification (ICD-10-AM) codes.

****It is implied that the laboratory should distinguish strains of coagulase negative Staphylococcus by means of either antibiogram or speciation, rather than just by morphological criteria, as pure cultures of some species such as Staphylococcus *epidermidis* may appear mixed on primary subculture.**

*****Clinical intent definition:** After consideration of clinical and laboratory evidence, a decision is made to give the patient antibiotics with therapeutic intent against this organism.

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Institutionalization

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Not Individual Case

OUTCOME TYPE

Adverse Outcome

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a lower score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Indicator area 4: neonatal infections CI 4.4.

MEASURE COLLECTION

MEASURE SET NAME

[Infection Control Indicators](#)

DEVELOPER

Australian Council on Healthcare Standards

FUNDING SOURCE(S)

Funding is direct Australian Council on Healthcare Standards (ACHS) funding sourced through our membership. ACHS does not receive external funding from the government or other sources.

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

Our terms of reference dictate the composition of the working parties that develop our indicators and include the following:

- Two Clinicians -- nominated by the relevant specialty college/association/society, one nominated to be the chair of the working party
- Private Hospital Representative -- nominated by the Australian Private Hospital Association
- Consumer Representative -- nominated by the Consumer Health Forum of Australia
- Coding Representative -- nominated by the National Centre for Clinical classification on Health
- Quality Health New Zealand, nominated by QHNZ (if applicable)
- Epidemiological/Clinical Research Representative, Director of Health Services Research Group, University of Newcastle
- Australian Council on Healthcare Standards (ACHS) Representatives -- Clinical Director, Coordinator, Administrative Assistant
- Other Expert Stakeholders, as required

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

None

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2002 Jan

REVISION DATE

2009 Jan

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: Australian Council on Healthcare Standards (ACHS). ACHS clinical indicator users' manual 2008. ULTIMO NSW: Australian Council on Healthcare Standards (ACHS); 2007 Dec. 776 p.

SOURCE(S)

Australian Council on Healthcare Standards (ACHS). ACHS clinical indicator users' manual 2009. ULTIMO NSW: Australian Council on Healthcare Standards (ACHS); 2009 Jan. 853 p.

MEASURE AVAILABILITY

The individual measure, "Indicator Area 4: Neonatal Infections CI 4.4," is published in "ACHS Clinical Indicator Users' Manual 2009."

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COMPANION DOCUMENTS

The following is available:

- Australian Council on Healthcare Standards (ACHS). Australasian clinical indicator report 2001-2007. Determining the potential to improve quality of care: 9th edition. ULTIMO NSW: Australian Council on Healthcare Standards (ACHS); 2008. 611 p. This document is available in Portable Document Format (PDF) from the [Australian Council on Healthcare Standards \(ACHS\) Web site](http://www.achs.org.au).

NQMC STATUS

This NQMC summary was completed by ECRI Institute on August 13, 2008. This NQMC summary was updated by ECRI Institute on October 9, 2009.

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